



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D3391-021
Job Sheet 171905



Part No: D3391-021

Job Qty: 1 ea

Part Name: Fwd Tube Assembly



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 2/9/18

Job Tracking No:

Due Date: 2/26/18

Created By: Michelle Gagnon-Donovan

Type: Stock

Description:

Note: DWG REV J SHEETS 4,5 IPP A 05.09.13 New issue KJ/JLM IPP B IPP C IPP D 07.03.13 rev F dwg EC IPP E 07.11.07 revG dwg ecn1053P EC verified by: DD IPP Rev:f ECN 1056 07-11-12 DD verified by: EC IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC IPP Rev I 09.02.02 added hardware EC verified by: DD IPP Rev:J 11.11.14 AS PER REV.I DD verified by:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	2/23/18	2/23/18	0.00	0.00	Start Up Skid tubes-1		
100	Skid tubes	1 pcs	2/23/18	2/23/18	0.00	0.82	Skid tubes-4		MGA
110	CNC Bend Skid tubes	1 pcs	2/24/18	2/24/18	0.00	1.00	CNC Bend Skid tube		MGA
120	QC	1 pcs	2/24/18	2/24/18	0.00	0.00	QC5		BF
130	CNC Vertical Machining	1 pcs	2/24/18	2/24/18	2.21	1.00	HAAS1-3		S.C. 18/08/17
140	QC	1 pcs	2/24/18	2/24/18	0.00	0.00	QC2 Machining-2		S.C. 18/02/17
150	Mill Conv	1 pcs	2/24/18	2/24/18	0.00	0.27	Mill Conv 1		J.L.C.
160	QC	1 pcs	2/24/18	2/24/18	0.00	0.00	QC2 Machining-2		J.L.C. 18-02-19
170	QC	1 pcs	2/24/18	2/24/18	0.00	0.00	QC8 Machining-2		7K 18/02/21
180	Skid tubes	1 pcs	2/24/18	2/24/18	0.00	0.82	Skid tubes-4		
190	QC	1 pcs	2/24/18	2/24/18	0.00	0.00	QC5		
200	HandFinish	1 pcs	2/24/18	2/24/18	0.00	0.33	HandFinish1		
210	QC	1 pcs	2/24/18	2/24/18	0.00	0.00	QC7-2		
220	Skid tubes	1 pcs	2/24/18	2/24/18	0.00	0.82	Skid tubes-4		
230	QC	1 pcs	2/24/18	2/24/18	0.00	0.00	QC5		
235	HandFinish	1 pcs	2/24/18	2/24/18	0.00	0.33	HandFinish2		
241	SprayPaint	1 pcs	2/24/18	2/24/18	0.00	0.99	Spray Paint		
250	QC	1 pcs	2/24/18	2/24/18	0.00	0.00	QC14		
254	HandFinish	1 pcs	2/26/18	2/26/18	0.00	0.33	HandFinish4		
256	QC	1 pcs	2/26/18	2/26/18	0.00	0.00	QC5		DAS
260	Packaging	1 pcs	2/26/18	2/26/18	0.00	0.00	Packaging3-1		21
280	QC21-SA	1 Ea	2/26/18	2/26/18	0.00	0.00	QC21		3.80

Part Op 100 - Cut as per dwg.

Descriptions: 110 - Bend as per Dwg D3391 Using Bend Prog 3391021

130 - 1-Machine as per Folio FA590 Rev. ____ & Dwg D3391 Rev. ____

150 - Drill X1 Aft cap as per Dwg D3391 .1875" dia

180 - 1-Drill Remaining two holes for tow cap using DT 8819 Locating off of .1875" holes drilled in previous step 2-Drill float bag holes as per Dwg D3391 using DT8798(Do not open tow cap holes to finish size) (ONLY DRILL HOLES MARKED "A") 6-Deburr & Scribe Batch number Inside aft end. 7-Transfer drill D3391-021 with D3391-023

220 - 1-instal spacers as per dwg D3391 A/R Magnabond 6398 batch; _____ exp. date: _____ cure time 12hrs. as per QSI015 2- grind crossbolt flush 3-back drill crossbolt if necessary

235 - AND REALODINE AS PER QSI 005

MAY 28 2018

P.T.O.

DART
AEROSPACE
S042035

Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA

TEL.: 1 613 632-5200

Email: sales@dartaero.com

www.dartaerospace.com



Fwd Tube Assembly

PART NO: D3391-021

Original Serial #: S042035

Revision:

Operation: Start up Operation 02/13/18

Change No:

Job No: 171905

0.1.9

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6013-047 <i>B86064</i>	Skidtube Material	1 Ea (1 ea)	90-Start up Operation	
D3670-4-200	Bushing	4 Ea (4 ea)	220-Skidtubes	
AELS-1032-225	Insert	10 Ea (10 ea)	254-HandFinish	
AN3C4A	Bolt	10 Ea (10 ea)	254-HandFinish	
D3401-041	Tow Cap Assembly	1 Ea (1 ea)	254-HandFinish	
D3672-1	Washer, Phenolic	4 Ea (4 ea)	254-HandFinish	
D4095-051	Wearpad Fwd	1 Ea (1 ea)	254-HandFinish	
NAS1149C0332R	Washer	10 Ea (10 ea)	254-HandFinish	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D6013-047	1	53	0
220-Skidtubes	D3670-4-200	4	58	0
254-HandFinish	AELS-1032-225	10	0	0
	AN3C4A	10	1,922	0
	D3401-041	1	2	0
	D3672-1	4	1,095	0
	D4095-051	1	28	0
	NAS1149C0332R	10	2,511	0

Part Specifications

Specifications could not be found.

Plex 2/9/18 10:11 AM Dart.Gagnon.Michelle

INSTALL D3670-4200 SPACER
SEAL WITH MAGNOBOND 6398
GRIND FLUSH
PRIOR TO PAINTING
4 PL

DETAIL B



INSTALL
AELS-1032-225
AFTER FINISH
10 PL

D4095-051
WEARSHOE

AN3C4A BOLT
NAS1149C0332R WASHER
6 PL

D3391-021 FWD TUBE ASSEMBLY ASSEMBLY DETAIL

SEAL WITH
SIKAFLEX-241/291

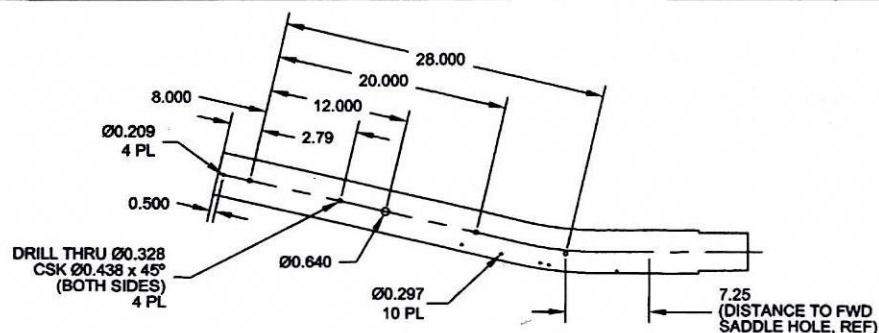
D3401-041
TOW CAP

DETAIL B SCALE 2X

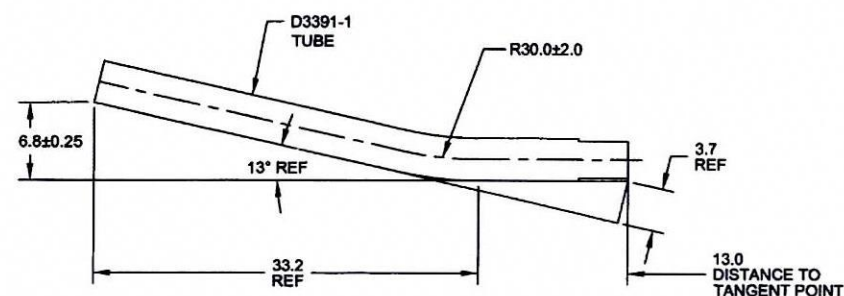
AN3C4A BOLT
D3672-1 WASHER
NAS1149C0332R WASHER
4 PL

D3391-021 FWD TUBE ASSEMBLY PARTS LIST

QTY -021	PART NUMBER	DESCRIPTION
X	D3391-021	FWD TUBE ASSEMBLY
1	D3391-1	TUBE
1	D3401-041	TOW CAP
4	D3670-4200	SPACER
4	D3672-1	WASHER
1	D4095-051	WEARSHOE
10	AELS-1032-225	INSERT
10	AN3C4A	BOLT
10	NAS1149C0332R	WASHER



D3391-021 DRILLING DETAIL



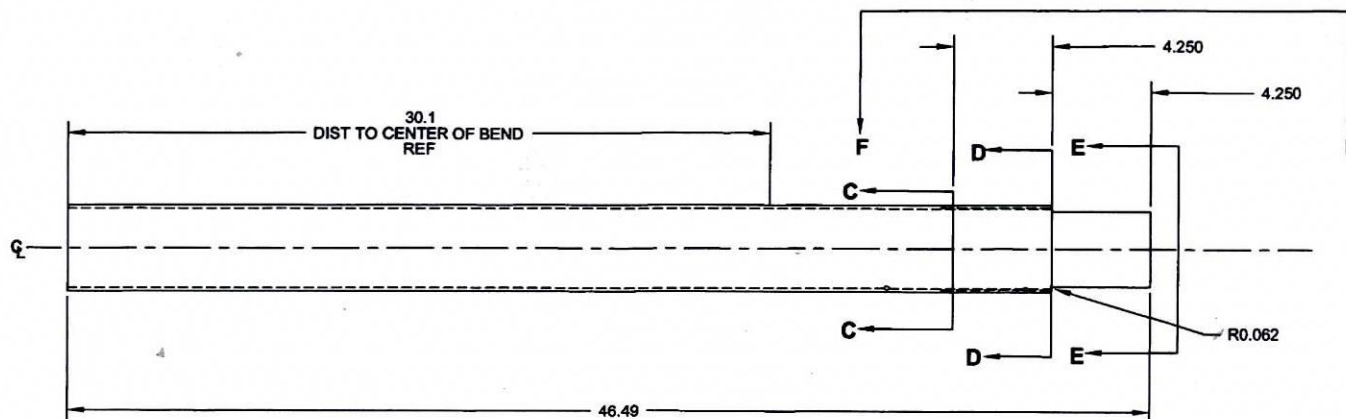
D3391-021 BENDING DETAIL (MAKE FROM D3391-1)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 171905

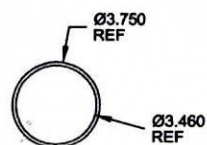
FEB 09 2018

RELEASED
2016-04-28

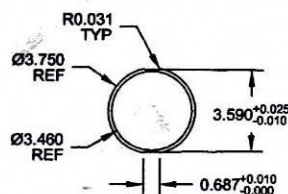
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	ML	EUGENE, OR	
CHECKED	CP	DRAWING NO.	REV. J
MFG. APPR.	TS	D3391	SHEET 4 OF 11
APPROVED	TS	TITLE	SCALE
DE APPR.	TS	412 FLOAT SKIDTUBE	NTS
DATE	16.01.14	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC	
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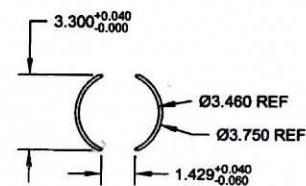
D3391-1 TUBE
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



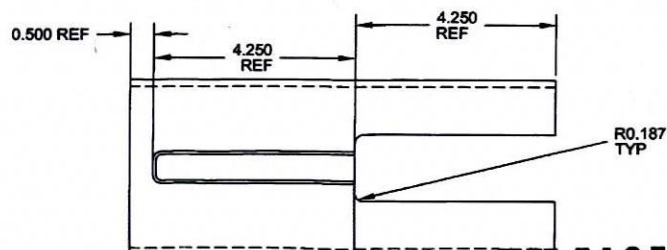
SECTION C-C



SECTION D-D



SECTION E-E



VIEW F-F
SCALE 2X

RELEASED
2016-04-28

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	ML	EUGENE, OR	
CHECKED	CP	DRAWING NO. D3391	REV. J
MFG. APPR.	22	SHEET 5 OF 11	
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DQA: _____ Date: _____


 QA Closed: **DAS 53**
 9-89

Date: MAY 28 2018

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>171905</u> Part No. <u>D3391-021</u> NCR No. <u>18-6876</u>		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☒</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☒	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																																																																																	
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Description Work Order Deviation				Disposition		<u>PD 18-2-23</u> Completed By <u>MD 23 Feb 18</u> Lead hand / Supervisor Approval Verification <u>TW</u> <u>18-02-23</u> QC / QA Coordinator Approval <u>PD 18-2-23</u>																																																																																																																																	
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